IMAGING IN CLUTTER

George C. Papanicolaou

Mathematics Department Stanford University Stanford, CA 94305 papanicolaou@stanford.edu

Array imaging, like synthetic aperture radar, does not produce good reflectivity images when there is clutter, or random scattering inhomogeneities, between the reflectors and the array. Can the blurring effects of clutter be controlled? I will discuss this issue in some detail and show that if bistatic array data is available and if the data is suitably preprocessed to stabilize clutter effects then a good deal can be done to minimize blurring.